

Sequence Listing.ST25.txt SEQUENCE LISTING

O'Toole, Margot Mounts, William M Shojaee, Negin

<120> COMPOSITION AND METHOD FOR TREATING LUPUS NEPHRITIS

<130> 031896-091000

<140> US 10/718,834

<141> 2003-11-21

<150> US 60/428,065 <151> 2002-11-21

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<170> PatentIn version 3.3

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<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

<400> 2

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Pro Leu Trp Asp Arg Gly Lys Ile Gly Lys Val Glu Gly His Gln His 35 40 45

Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 60

Ser Ser Glu Val Asn Glu Glu Ser Gly Asp Leu His Leu Pro His Glu 65 70 75 80

Glu Leu Leu Leu Thr Asp Gly Glu Glu Glu Asp Ala Glu Ala Phe 85 90 95

Phe Gln Asp Gln Ser Glu Glu Pro Gly Ala Ala Arg Pro His His Gln 100 105 110

Ala Arg Gln Val Glu His Ser Thr Gln Arg Gly His Leu Glu Ile Arg 115 120 125

Sequence Listing.ST25.txt Glu Leu Lys Lys Lys Leu Phe Lys Arg Arg Arg Val Leu Asn Arg Glu Arg Arg Leu Arg His Arg Val Val Gly Ala Val Ile Asp Gln Gly Leu 145 150 155 160 Ile Thr Arg His His Leu Lys Lys Arg Ala Ala Gln Glu Leu Ser Gln 165 170 175Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln 180 185 190 Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205 Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe 210 220 Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240 Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro Ala Gly Gly Pro Gly Leu Glu Asp Val Val Gln Glu Val Gln Gln Val Leu 260 265 270 Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly 290 295 300 Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu 305 310 315 320 Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380

Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly 385 395 400 Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Ser Gln Thr Pro Ser Thr 405 410 415Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val Pro 420 425 430 Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg His Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser Leu Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala Thr 465 470 475 480 Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu 500 505 510 Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu Asp 515 520 525 Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly Ala Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala 545 550 555 560 Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Glu Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu His Leu Gln Lys Leu
580 585 590 585 Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro Pro 600 Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu 625 630 635 630 635 Page 5

Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser 645 Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser Pro 660 665 670 Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val 690 695 700 His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn 705 710 715 720 Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly Pro Ala 725 730 735 Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp 740 745 750 Leu Ala Pro Leu Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala 755 760 765 Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 780 Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe 840 Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser Ala 850 855 860 Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala 865 870 875 880 Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val Page 6

Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln 900 905 910

Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His 915 920 925

Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 940

Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu Val 945 950 955 960

Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro Pro 965 970 975

Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg 980 985 990

Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala 995 1000 1005

Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 1010 1015 1020

Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Pro 1025 1030 1035

Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu 1040 1050

Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly 1055 1060 1065

Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg 1070 1080

Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro 1085 1090 1095

Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile 1100 1105 1110

Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu 1115 1120 1125 Sequence Listing.ST25.txt
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Arg Gln Gly Thr 1160

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Pro Leu Trp Asp Arg Gly Lys Ile Gly Lys Val Glu Gly His Gln His 35 40 45

Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 60

Ser Ser Glu Val Asn Glu Glu Ser Gly Asp Leu His Leu Pro His Glu 65 70 75 80

Glu Leu Leu Leu Thr Asp Gly Glu Glu Glu Asp Ala Glu Ala Phe 85 90 95

Leu Gln Asp Gln Ser Glu Glu Pro Gly Ala Ala Arg Pro His His Gln
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Ala Arg Gln Val Glu His Ser Thr Gln Arg Gly His Leu Glu Ile Arg 115 120 125

Glu Leu Lys Lys Lys Leu Phe Lys Arg Arg Arg Val Leu Asn Arg Glu 130 135 140

Arg Arg Leu Arg His Arg Val Val Gly Ala Val Ile Asp Gln Gly Leu 145 150 155 160

Ile Thr Arg His His Leu Lys Lys Arg Ala Ala Gln Glu Leu Ser Gln Page 8

Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln 180 185 190 Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205 Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe 210 220 Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240 Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro Ala 245 250 255 Gly Gly Pro Gly Leu Glu Asp Val Gln Glu Val Gln Gln Val Leu 260 265 270 Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser 275 280 285 Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly 290 295 300 Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu 305 310 315 320 Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380 Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly

Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Gln Thr Pro Ser Thr 405 410 415

Page 9

Sequence Listing.ST25.txt Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val Pro 420 425 430 Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg His Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser Leu 450 460 Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala Thr 465 470 475 480 Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu
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900 905 910 Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His Page 11

Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 940

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Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro Pro 965 970 975

Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg 980 985 990

Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala 995 1000 1005

Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 1010 1020

Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Pro 1025 1030 1035

Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu 1040 1045 1050

Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly 1055 1060 1065

Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg 1070 1080

Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro 1085 1090 1095

Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile 1100 1110

Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu 1115 1120 1125

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Arg Gln Gly Thr

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Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205 Page 13

Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240 Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro Ala Gly Gly Pro Gly Leu Glu Asp Val Gln Glu Val Gln Gln Val Leu 260 265 270 Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly 290 295 300 Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu 305 310 315 320 Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp 355 360 365 Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380 Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Ser Gln Thr Pro Ser Thr 410 Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val Pro 420 425 430 Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg His 435 440 445 Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser Leu Page 14

Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala Thr 465 470 475 480 Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu 500 505 510 Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu Asp 515 520 525 Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly Ala Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala 545 550 560 Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Glu 565 570 575 Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu His Leu Gln Lys Leu 580 590 Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro Pro Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu 625 635 640 Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser Pro 660 Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val 690 695 700

Sequence Listing.ST25.txt His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn 705 710 715 720 Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly Pro Ala 725 730 735 Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp 740 745 750 Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala 755 760 765 Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 775 780 . Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu 805 810 815 Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu 820 825 830 Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser Ala 850 855 860 Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala 865 870 875 880 Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val 885 890 895 Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln
900 905 910 Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 935 940 Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu Val 955

Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro Pro 965 970 975

Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg 980 985 990

Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala 995 1000 1005

Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 1010 1020

Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Pro 1025 1030 1035

Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu 1040 1050

Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly 1055 1060 1065

Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg 1070 1080

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Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile 1100 1110

Arg Asp Phe Ser Arg Glu Gly Gly Gly Gly Gly Pro His Leu 1115 1120 1125

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Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 60

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Phe Gln Asp Gln Ser Glu Glu Pro Gly Ala Ala Arg Pro His His Gln 100 105 110

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Ile Thr Arg His His Leu Lys Lys Arg Ala Ala Gln Glu Leu Ser Gln 165 170 175

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Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu
500 505 510 Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu Asp 515 520 525 Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly Ala Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala 545 550 560 Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Glu 565 570 575 Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu His Leu Gln Lys Leu
580 585 590 Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro Pro Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu 625 630 635 **640** . Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser Pro 660 Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val 690 700 His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn 705 710 715 720 Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly Pro Ala 725 730 735 Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp Page 20

Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala 755 760 765 Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 775 780 Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu 805 810 815 Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu 820 825 830 Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser Ala 850 855 860 Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala 865 870 875 880 Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val 885 890 895 Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln 900 905 910Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His 915 920 925 Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 935 940 Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu Val 950 960 Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro Pro Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg 980 985

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Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro
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Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu 1115 1120 1125
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Page 22

Sequence Listing.ST25.txt

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Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser Ala 850 855 860 Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val 885 890 895 Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln
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Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 55 60 Page 27

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Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380 Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly 385 390 395 400 Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Gln Thr Pro Ser Thr 405 410 415Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val Pro 420 425 430 Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg His 435 440 445 Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser Leu 450 455 460 Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala Thr 465 470 475 480 Met Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly 485 490 495 Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu 500 505 510 Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu Asp 515 520 525 Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly Ala 530 540 Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala 545 550 560

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- Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu 1115 1120 1125
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- Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 60
- Ser Ser Glu Val Asn Glu Glu Ser Gly Asp Leu His Leu Pro His Glu 65 70 75 80
- Glu Leu Leu Leu Thr Asp Gly Glu Glu Asp Ala Glu Ala Phe 85 90 95

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165 170 175 Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln 180 185 190 Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205 Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe 210 220 Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240 Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro Ala 245 250 255 Gly Gly Pro Gly Leu Glu Asp Val Val Gln Glu Val Gln Gln Val Leu 260 265 270 Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly 290 295 300 Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu 305 310 315 320 Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Page 33

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580 585 590 Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro Pro Page 34

Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu 625 Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser Pro 660 665 670 Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val 690 695 700 His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn 705 710 715 720 Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly Pro Ala 725 730 735 Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp 740 745 750 Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala 755 760 765 Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 775 780 Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu 815 Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe 835

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Sequence Listing.ST25.txt Glu Leu Lys Lys Lys Leu Phe Lys Arg Arg Arg Val Leu Asn Arg Glu Arg Arg Leu Arg His Arg Val Val Gly Ala Val Ile Asp Gln Gly Leu 145 150 155 160 Ile Thr Arg His His Leu Lys Lys Arg Ala Ala Gln Glu Leu Ser Gln
165 170 175 Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln 180 185 190 Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205 Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240 Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro Ala Gly Gly Pro Gly Leu Glu Asp Val Gln Glu Val Gln Gln Val Leu 260 265 270 Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser 275 280 285 Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly 290 295 300 Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu 305 310 315 320 Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380

Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Gln Thr Pro Ser Thr 405 410 415 Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val Pro 420 425 430 Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg His 435 440 445 Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser Leu 450 460 Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala Thr 465 470 475 480 Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu 500 510 Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu Asp 515 520 525 Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly Ala Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala 545 550 555 560 Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Glu 565 570 575 Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu His Leu Gln Lys Leu
580 585 590 590 Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro Pro Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu 625 630 635 635 640 Page 39

Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser 645 Cys Gly Pro Glu Ala Leu Pro His Leu Leu Ser Arg Ala Arg Ser Pro 660 665 670 Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val 690 695 700 His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn 705 710 715 720 Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly Pro Ala 725 730 735 Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp 740 745 750 Leu Ala Pro Leu Leu Leu His Pro Glu Glu Val Ala Glu Ala Ala 755 760 765 Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 775 780 Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser Ala 850 855 860 Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala 865 870 880 Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val Page 40

Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln 900 905 910

Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His 915 920 925

Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 940

Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu Val 945 950 955 960

Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro Pro 965 970 975

Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg 980 985 990

Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala 995 1000 1005

Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 1010 1015 1020

Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Pro 1025 1030 1035

Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu 1040 1050

Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly 1055 1060 1065

Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg 1070 1080

Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro 1085 1090 1095

Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile 1100 11105 1110

Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu 1115 1120 1125

Sequence Listing.ST25.txt
Ala Val Leu His Ser Val Leu His Arg Asn Ile Asp Arg Leu Gly
1130 1135 1140

Leu Phe Ser Gly Arg Phe Gln Ala Pro Ser Pro Ser Thr Leu Leu 1145 1150 1155

Arg Gln Gly Thr 1160

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<212> PRT

<213> Artificial

<220>

<223> A variant of the human BFLP1698 polypeptide

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Pro Leu Trp Asp Arg Gly Lys Ile Gly Lys Val Glu Gly His Gln His 35 40 45

Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 60

Ser Ser Glu Val Asn Glu Glu Ser Gly Asp Leu His Leu Pro His Glu 65 70 75 80

Glu Leu Leu Leu Thr Asp Gly Glu Glu Asp Ala Glu Ala Phe 85 90 95

Phe Gln Asp Gln Ser Glu Glu Pro Gly Ala Ala Arg Pro His His Gln
100 105 110

Ala Arg Gln Val Glu His Ser Thr Gln Arg Gly His Leu Glu Ile Arg 115 120 125

Glu Leu Lys Lys Lys Leu Phe Lys Arg Arg Arg Val Leu Asn Arg Glu 130 135 140

Arg Arg Leu Arg His Arg Val Val Gly Ala Val Ile Asp Gln Gly Leu 145 150 155 160

Ile Thr Arg His His Leu Lys Lys Arg Ala Ala Gln Glu Leu Ser Gln Page 42

Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln 180 185 190 Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205 Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe 210 220 Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240 Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro Ala 245 250 255 Gly Gly Pro Gly Leu Glu Asp Val Val Gln Glu Val Gln Gln Val Leu 260 265 270 Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser 275 280 285 Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly 290 295 300 Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu 305 310 315 320 Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp

Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Gln Thr Pro Ser Thr 405 410 415

Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly

Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380

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Asp	Pro	Phe	Pro 420	Gly	Ser	Pro	Ala	equer Ile 425	Pro	Ala	ing.S Glu	Lys	Arg 430	val	Pro
Lys	Ile	Ala 435	Ser	۷al	val	Gly	Ile 440		Gly	His	Leu	Ala 445		Arg	His
Gly	Asp 450	Ser	Ile	Arg	Arg	G1u 455	Leu	Leu	Arg	Met	Phe 460	His	Asp	Ser	Leu
Аlа 465	Gly	Gly	Ser	Gly	Gly 470	Arg	Ser	Gly	Asp	Pro 475	Ser	Leu	Gln	Ala	Thr 480
val	Pro	Phe	Leu	Leu 485	Gln	Leu	Ala	val	Met 490	Ser	Pro	Ala	Leu	Leu 495	Gly
Thr	val	Ser	Gly 500	Glu	Leu	٧a٦	Asp	Cys 505	Leu	Lys	Pro	Pro	Ala 510	Val	Leu
Ser	Gln	Leu 515	Gln	Gln	His	Leu	G]n 520	Gly	Phe	Pro	Arg	Glu 525	Glu	Leu	Asp
Asn	Met 530	Leu	Asn	Leu	Ala	va1 535	His	Leu	Val	Ser	Gln 540	Ala	Ser	Gly	Ala
Gly 545	Ala	Tyr	Arg	Leu	Leu 550	Gln	Phe	Leu	val	Asp 555	Thr	Ala	Met	Pro	Ala 560
Ser	val	Ile	Thr	Thr 565	Gln	Gly	Leu	Ala	Va1 570	Pro	Asp	Thr	val	Arg 575	Glu
Ala	Cys	Asp	Arg 580	Leu	Ile	Gln	Leu	Leu 585	Leu	Leu	His	Leu	Gln 590	Lys	Leu
Val	His	His 595	Arg	Gly	Gly	Ser	Pro 600	Gly	Glu	Gly	Val	Leu 605	Gly	Pro	Pro
Pro	Pro 610	Pro	Arg	Leu	val	Pro 615	Phe	Leu	Asp	Ala	Leu 620	Lys	Asn	His	val
Gly 625	Glu	Leu	Cys	Gly	G]u 630	Thr	Leu	Arg	Leu	G1u 635	Arg	Lys	Arg	Phe	Leu 640
Trp	Gln	His	Gln	Leu 645	Leu	Gly	Leu	Leu	Ser 650	val	Tyr	Thr	Arg	Pro 655	Ser
Cys	Gly	Pro	G1u 660	Ala	Leu	Gly	His	Leu 665	Leu	Ser	Arg	Ala	Arg 670	Ser	Pro

Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser 680 Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val 690 700 His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Asp Gly Pro Ala 725 730 735 Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp 740 745 750 Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 780 Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu 820 825 830 Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser Ala 850 855 860 Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala 865 870 875 880 880 Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln 900 905 910Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His 920 Page 45

- Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 935 940
- Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu Val 945 950 955 960
- Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro Pro 965 970 975
- Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg 980 985 990
- Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala 995 1000 1005
- Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 1010 1020
- Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Pro 1025 1030 1035
- Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu 1040 1050
- Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly 1055 1060 1065
- Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg 1070 1080
- Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro 1085 1090 1095
- Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile 1100 1105 1110
- Arg Asp Phe Ser Arg Glu Gly Gly Gly Gly Gly Gly Pro His Leu 1115 1120 1125
- Ala Val Leu His Ser Val Leu His Arg Asn Ile Asp Arg Leu Gly 1130 1140
- Leu Phe Ser Gly Arg Phe Gln Ala Pro Ser Pro Ser Thr Leu Leu 1145 1150 1155

Arg Gln Gly Thr

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Asn Ser Pro Gly Ser Ser Gln His Pro Glu Ser Pro Arg Leu Pro Asn 20 25 30

Pro Leu Trp Asp Arg Gly Lys Ile Gly Lys Val Glu Gly His Gln His 35 40 45

Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 60

Ser Ser Glu Val Asn Glu Glu Ser Gly Asp Leu His Leu Pro His Glu 65 70 75 80

Glu Leu Leu Leu Thr Asp Gly Glu Glu Glu Asp Ala Glu Ala Phe 85 90 95

Phe Gln Asp Gln Ser Glu Glu Pro Gly Ala Ala Arg Pro His His Gln
100 105 110

Ala Arg Gln Val Glu His Ser Thr Gln Arg Gly His Leu Glu Ile Arg 115 120 125

Glu Leu Lys Lys Lys Leu Phe Lys Arg Arg Arg Val Leu Asn Arg Glu 130 135 140

Arg Arg Leu Arg His Arg Val Val Gly Ala Val Ile Asp Gln Gly Leu 145 150 155 160

Ile Thr Arg His His Leu Lys Lys Arg Ala Ala Gln Glu Leu Ser Gln 165 170 175

Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln 180 185 190

Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205 Page 47

Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240 Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro Ala Gly Gly Pro Gly Leu Glu Asp Val Val Gln Glu Val Gln Gln Val Leu 260 265 270 Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly 290 295 300 Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu 305 310 315 320 Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp 355 360 365 Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380 Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Ser Gln Thr Pro Ser Thr 410 Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val Pro 420 425 430 Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg His 435 440 445 Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser Leu Page 48

Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala Thr 465 470 475 480 Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu 500 505 510 Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu Asp 515 520 525 Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly Ala 530 Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala 545 550 555 560 Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Glu 565 570 575 Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu His Leu Gln Lys Leu 580 585 590 Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro Pro Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu 625 630 635 Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser Pro Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val

Sequence Listing.ST25.txt His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn 705 710 715 720 Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly Pro Ala Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp 740 745 750 Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala 755 760 765 Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 775 780 Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu 805 810 815 Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu 820 825 830 Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Ala Leu Ser Val Val Ser Ala 850 855 860 Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala 865 870 875 880 880 Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val 885 890 895 Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln
900 905 910 Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 935 940 Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu Val 955 950

Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro Pro 965 970 975

Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg 980 985 990

Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala 995 1000 1005

Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 1010 1020

Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Pro 1025 1030 1035

Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu 1040 1045 1050

Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly 1055 1060 1065

Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg 1070 1080

Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro 1085 1090 1095

Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile 1100 1110

Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu 1115 1120 1125

Ala Val Leu His Ser Val Leu His Arg Asn Ile Asp Arg Leu Gly 1130 1140

Leu Phe Ser Gly Arg Phe Gln Ala Pro Ser Pro Ser Thr Leu Leu 1145 1150 1155

Arg Gln Gly Thr 1160

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Asn Ser Pro Gly Ser Ser Gln His Pro Glu Ser Pro Arg Leu Pro Asn 20 25 30

Pro Leu Trp Asp Arg Gly Lys Ile Gly Lys Val Glu Gly His Gln His 35 40 45

Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 60

Ser Ser Glu Val Asn Glu Glu Ser Gly Asp Leu His Leu Pro His Glu 65 70 75 80

Glu Leu Leu Leu Thr Asp Gly Glu Glu Glu Asp Ala Glu Ala Phe 85 90 95

Phe Gln Asp Gln Ser Glu Glu Pro Gly Ala Ala Arg Pro His His Gln 100 105 110

Ala Arg Gln Val Glu His Ser Thr Gln Arg Gly His Leu Glu Ile Arg 115 120 125

Glu Leu Lys Lys Lys Leu Phe Lys Arg Arg Arg Val Leu Asn Arg Glu 130 135 140

Arg Arg Leu Arg His Arg Val Val Gly Ala Val Ile Asp Gln Gly Leu 145 150 155 160

Ile Thr Arg His His Leu Lys Lys Arg Ala Ala Gln Glu Leu Ser Gln
165 170 175

Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln 180 185 190

Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205

Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe 210 215 220

Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240

Ala Gly Pro Pro His Leu Arg Pro Pro Pro Ser His Val Pro Ala Gly Gly Pro Gly Leu Glu Asp Val Val Gln Glu Val Gln Gln Val Leu 260 265 270 Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly 290 295 300 Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu 320 Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380 Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Ser Gln Thr Pro Ser Thr Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val Pro Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg His 435 Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser Leu Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala Thr 465 470 475 480 Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly Page 53

Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu 500 505 510 Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu Asp 515 520 525 Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly Ala 530 540 Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala 545 550 555 560 Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Glu 565 570 575 Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu His Leu Gln Lys Leu
580 585 590 Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro Pro 595 600 605 Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu 625 635 640 Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser Pro Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser 675 680 685 Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val 690 695 700 His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn 705 710 715 720 Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly Pro Ala 725 730 735 Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp Page 54

Leu Ala Pro Leu Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala 755 760 765 Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 775 780 Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu 805 810 815 Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu 820 825 830 Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser Ala 850 855 860 Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala 865 870 875 880 Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val 885 890 895 Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln 900 905 910Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His 915 920 925 Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 940 Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu Val · 960 Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala His Pro Pro 965 970 975 Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg

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Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala
Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 1010 1020 .
Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Pro
1025 1030
Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu 1040 1045 1050
Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly 1055 1060 1065
                                                 1065
Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg
                           1075
Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro
    1085
                           1090
                                                 1095
Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile
1100 1105 1110
Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu 1115 1120 1125
Ala Val Leu His Ser Val Leu His Arg Asn Ile Asp Arg Leu Gly
    1130
                          1135
                                                 1140
Leu Phe Ser Gly Arg Phe Gln Ala Pro Ser Pro Ser Thr Leu Leu
    1145
                          1150
                                                 1155
Arg Gln Gly Thr
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Asn Ser Pro Gly Ser Ser Gln His Pro Glu Ser Pro Arg Leu Pro Asn
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Sequence Listing.ST25.txt

Pro Leu Trp Asp Arg Gly Lys Ile Gly Lys Val Glu Gly His Gln His 35 40 45 Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 60 Ser Ser Glu Val Asn Glu Glu Ser Gly Asp Leu His Leu Pro His Glu 65 70 75 80 Glu Leu Leu Leu Thr Asp Gly Glu Glu Glu Asp Ala Glu Ala Phe 85 90 95 Phe Gln Asp Gln Ser Glu Glu Pro Gly Ala Ala Arg Pro His His Gln
100 105 110 Ala Arg Gln Val Glu His Ser Thr Gln Arg Gly His Leu Glu Ile Arg 115 120 125 Glu Leu Lys Lys Lys Leu Phe Lys Arg Arg Arg Val Leu Asn Arg Glu 130 135 140 Arg Arg Leu Arg His Arg Val Val Gly Ala Val Ile Asp Gln Gly Leu 145 150 155 160 Ile Thr Arg His His Leu Lys Lys Arg Ala Ala Gln Glu Leu Ser Gln
165 170 175 Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln 180 185 190 Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205 Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe 210 220 Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240 Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro Ala Gly Gly Pro Gly Leu Glu Asp Val Val Gln Glu Val Gln Gln Val Leu 260 265 270

Sequence Listing.ST25.txt Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser 275 280 285 Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu 305 310 315 320 Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380 Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Ser Gln Thr Pro Ser Thr 405 410 415 Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val Pro 420 425 430 Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg His 435 440 445 Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser Leu 450 460 Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala Thr 465 470 475 480 Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly 490 Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu 500 510 Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu Asp 515 520 525

Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly Ala Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala 545 550 555 560 Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Glu 565 570 575 Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu His Leu Gln Lys Leu
580 585 590 Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro Pro Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu 625 630 635 Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser Pro 660 665 670 Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val 690 695 700 His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn 705 710 715 720 Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly Pro Ala 725 730 735 Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp 740 745 750 Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala 755 760 765 Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 775 780 Page 59

Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu 805 810 815 Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu 820 825 830 Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser Ala 850 855 860 Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val 885 890 895 Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln
900 905 910 Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 935 940 Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu Val Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro Pro Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala 995 1000 1005 Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 1010 1015 1020 Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Thr Page 60

Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu 1040 1050

Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly 1055 1060 1065

Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg 1070 1080

Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro 1085 1090 1095

Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile 1100 1105 1110

Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu 1115 1120 1125

Ala Val Leu His Ser Val Leu His Arg Asn Ile Asp Arg Leu Gly 1130 1140

Leu Phe Ser Gly Arg Phe Gln Ala Pro Ser Pro Ser Thr Leu Leu 1145 1150 1155

Arg Gln Gly Thr 1160

<210> 14

<211> 1162

<212> PRT

<213> Artificial

<220>

<223> A variant of the human BFLP1698 polypeptide

<400> 14

Met Ala Leu Val Pro Gly Arg Ser Lys Glu Asp Gly Leu Trp Thr Arg
1 10 15

Asn Ser Pro Gly Ser Ser Gln His Pro Glu Ser Pro Arg Leu Pro Asn 20 25 30

Pro Leu Trp Asp Arg Gly Lys Ile Gly Lys Val Glu Gly His Gln His 35 40 45

Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu 50 55 60 Page 61

Ser Ser Glu Val Asn Glu Glu Ser Gly Asp Leu His Leu Pro His Glu 65 70 75 80 Glu Leu Leu Leu Thr Asp Gly Glu Glu Asp Ala Glu Ala Phe 85 90 95 Phe Gln Asp Gln Ser Glu Glu Pro Gly Ala Ala Arg Pro His His Gln 100 105 110Ala Arg Gln Val Glu His Ser Thr Gln Arg Gly His Leu Glu Ile Arg 115 120 125 Glu Leu Lys Lys Lys Leu Phe Lys Arg Arg Arg Val Leu Asn Arg Glu Arg Arg Leu Arg His Arg Val Val Gly Ala Val Ile Asp Gln Gly Leu 145 150 155 160 Ile Thr Arg His His Leu Lys Lys Arg Ala Ala Gln Glu Leu Ser Gln Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln 180 185 190 Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg Ser 195 200 205 Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val Phe 210 220 Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro Val 225 230 235 240 Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro Ala Gly Gly Pro Gly Leu Glu Asp Val Gln Glu Val Gln Gln Val Leu 260 265 270 Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile Ser 280 Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly 290 295 300 Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu Leu Page 62

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Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr 325 330 335 Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys Val 340 345 350 Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp Trp 355 360 365 Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser Arg 370 375 380 Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala Gly 385 390 395 400 Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Ser Gln Thr Pro Ser Thr 405 410 415 Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val Pro 420 425 430 Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg His 435 440 445 Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser Leu 450 460 Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala Thr 465 470 475 480 Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly 485 490 495 Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val Leu 500 505 510 Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu Asp 515 520 525 Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly Ala 530 535 540 Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala 545 550 555 560

Sequence Listing.ST25.txt Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Glu 565 570 575 565 Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu Leu His Leu Gln Lys Leu
580 585 590 Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro Pro Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu 625 630 635 Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser Pro 660 665 670 Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg Val 690 695 700 His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg Asn 705 710 715 720 Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly Pro Ala 725 730 735 Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser Asp 740 745 750 Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala 755 760 765 Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro 770 780 Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala 785 790 795 800 Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln Leu

- Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val Leu 820 825 830
- Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu Phe 835 840
- Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser Ala 850 855
- Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr Ala 865 870 880
- Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly Val 885 890 895
- Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn Gln
 900 905 910
- Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His 915 920 925
- Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly Ala 930 935 940
- Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu Val 945 950 955 960
- Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro Pro 965 970 975
- Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg 980 985 990
- Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala 995 1000 1005
- Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 1010 1015 1020
- Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Thr 1025 1030 1035
- Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu 1040 1050
- Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly 1055 1060 1065 Page 65

Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg 1070 1080

Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro 1085 1090 1095

Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile 1100 1110 1110

Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu 1115 1120 1125

Ala Val Leu His Ser Val Leu His Arg Asn Leu Asp Arg Leu Gly 1130 1135 1140

Leu Phe Ser Gly Arg Phe Gln Ala Pro Ser Pro Ser Thr Leu Leu 1145 1150 1155

Arg Gln Gly Thr 1160

<210> 15

<211> 160 <212> PRT

<212> PRT <213> Homo sapiens

<400> 15

Met Ala Leu Val Pro Gly Arg Ser Lys Glu Asp Gly Leu Trp Thr Arg
1 10 15

Asn Ser Pro Gly Ser Ser Gln His Pro Glu Ser Pro Arg Leu Pro Asn 20 25 30

Pro Leu Trp Asp Arg Gly Lys Ile Gly Lys Val Glu Gly His Gln His 35 40 45

Ile Gln Asp Phe Ser Gln Lys Ser His Leu Pro Ser Ile Val Val Glu
50 55 60

Ser Ser Glu Val Asn Glu Glu Ser Gly Asp Leu His Leu Pro His Glu 65 70 75 80

Glu Leu Leu Leu Thr Asp Gly Glu Glu Glu Asp Ala Glu Ala Phe 85 90 95

Phe Gln Asp Gln Ser Glu Glu Pro Gly Ala Ala Arg Pro His His Gln
100 105 110
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Ala Arg Gln Val Glu His Ser Thr Gln Arg Gly His Leu Glu Ile Arg 115 120 125

Glu Leu Lys Lys Lys Leu Phe Lys Arg Arg Arg Val Leu Asn Arg Glu 130 135 140

Arg Arg Leu Arg His Arg Val Val Gly Ala Val Ile Asp Gln Gly Leu 145 150 155 160

<210> 16

<211> 1019

<212> PRT

<213> Homo sapiens

<400> 16

Met Ser Ala Leu Cys Asp Pro Pro Gly Ala Pro Gly Pro Pro Gly Pro 10 15

Ala Pro Ala Thr His Gly Pro Ala Pro Leu Ser Ala Gln Glu Leu Ser 20 25 30

Gln Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His 35 40 45

Gln Leu Ser Ala Arg Glu His Ala Arg Cys Gly Leu Leu Leu Leu Arg 50 60

Ser Leu Pro Pro Ala Arg Ala Ala Val Leu Asp His Leu Arg Gly Val 65 70 75 80

Phe Asp Glu Ser Val Arg Ala His Leu Ala Ala Leu Asp Glu Thr Pro 85 90 95

Val Ala Gly Pro Pro His Leu Arg Pro Pro Pro Pro Ser His Val Pro
100 105 110

Ala Gly Gly Pro Gly Leu Glu Asp Val Val Gln Glu Val Gln Gln Val 115 120 125

Leu Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val Ile 130 135 140

Ser Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr Ser 145 150 155 160

Gly Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu Leu 165 170 175 Page 67

Leu Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp Ile Tyr Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala Cys 195 200 205Val Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe Asp 210 220 Trp Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile Ser 225 230 235 240 Arg Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly Ala 245 250 255 Gly Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Gln Thr Pro Ser 260 265 270 Thr Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg Val 275 280 285 Pro Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser Arg 290 295 300 His Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp Ser 305 310 315 320Leu Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln Ala 325 330 335 Thr Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu 340 345 350 Gly Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala Val 355 360 365 Leu Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu Leu 370 380 Asp Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser Gly 385 390 395 Ala Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro 405 410 415 Ala Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Page 68

Glu Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu His Leu Gln Lys 435 440 445 Leu Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly Pro 450 460 Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His 465 470 475 Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe 485 490 495 Leu Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro 500 505 510 Ser Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser 515 520 525 Pro Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val Val 530 540 Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala Arg 545 550 555 560 Val His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu Arg 565 570 575 Asn Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Glu Gly Pro 580 585 590 Ala Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu Ser 595 600 605 Asp Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe Phe Ala Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys Gln

Sequence Listing.ST25.txt Leu Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val 680 Leu Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu Leu 690 700 Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val Ser 705 710 715 720 Ala Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His Thr 725 730 735 Ala Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly
740 745 750 Val Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg Asn 755 760 765 Gln Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val 770 775 780 His Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp Gly 785 790 795 800 Ala Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr Leu 805 810 815 Val Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp Pro 820 825 830 Pro Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile Gly Arg Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val 850 860 Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly 865 870 875 Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Pro Asp 890 Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu Val Ala 900 905 910Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly Asn Met His 915 920 925

Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg Leu Leu Leu 930 940

Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro Leu Pro Gln Lys Phe 945 950 955 960

Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile Arg Asp Phe Ser Arg Glu 965 970 975

Gly Gly Glu Gly Gly Pro His Leu Ala Val Leu His Ser Val Leu 980 985 990

His Arg Asn Ile Asp Arg Leu Gly Leu Phe Ser Gly Arg Phe Gln Ala 995 1000 1005

Pro Ser Pro Ser Thr Leu Leu Arg Gln Gly Thr 1010 1015

<210> 17

<211> 908

<212> PRT

<213> Homo sapiens

<400> 17

Pro Ala Gly Gly Pro Gly Leu Glu Asp Val Val Gln Gln Gln 15

Val Leu Ser Glu Phe Ile Arg Ala Asn Pro Lys Ala Trp Ala Pro Val 20 25 30

Ile Ser Ala Trp Ser Ile Asp Leu Met Gly Gln Leu Ser Ser Thr Tyr 35 40 45

Ser Gly Gln His Gln Arg Val Pro His Ala Thr Gly Ala Leu Asn Glu 50 55 60

Leu Leu Gln Leu Trp Met Gly Cys Arg Ala Thr Arg Thr Leu Met Asp 65 70 75 80

Ile Tyr Val Gln Cys Leu Ser Ala Leu Ile Gly Ser Cys Pro Asp Ala 85 90 95

Cys Val Asp Ala Leu Leu Asp Thr Ser Val Gln His Ser Pro His Phe 100 105 110

Asp Trp Val Val Ala His Ile Gly Ser Ser Phe Pro Gly Thr Ile Ile 115 120 125

Ser Arg Val Leu Ser Cys Gly Leu Lys Asp Phe Cys Val His Gly Gly 130 140 Ala Gly Gly Gly Ala Gly Ser Ser Gly Gly Ser Ser Gln Thr Pro
145 150 155 160 Ser Thr Asp Pro Phe Pro Gly Ser Pro Ala Ile Pro Ala Glu Lys Arg 165 170 175 Val Pro Lys Ile Ala Ser Val Val Gly Ile Leu Gly His Leu Ala Ser 180 185 190 Arg His Gly Asp Ser Ile Arg Arg Glu Leu Leu Arg Met Phe His Asp 195 200 205 Ser Leu Ala Gly Gly Ser Gly Gly Arg Ser Gly Asp Pro Ser Leu Gln 210 215 220 Ala Thr Val Pro Phe Leu Leu Gln Leu Ala Val Met Ser Pro Ala Leu Leu Gly Thr Val Ser Gly Glu Leu Val Asp Cys Leu Lys Pro Pro Ala 245 250 255 Val Leu Ser Gln Leu Gln Gln His Leu Gln Gly Phe Pro Arg Glu Glu 260 265 270 Leu Asp Asn Met Leu Asn Leu Ala Val His Leu Val Ser Gln Ala Ser 275 280 285 Gly Ala Gly Ala Tyr Arg Leu Leu Gln Phe Leu Val Asp Thr Ala Met Pro Ala Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val 305 310 315 320 Arg Glu Ala Cys Asp Arg Leu Ile Gln Leu Leu Leu Leu His Leu Gln 325 330 335 Lys Leu Val His His Arg Gly Gly Ser Pro Gly Glu Gly Val Leu Gly 340 345 350 Pro Pro Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn 355 360 365 His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg 370 380 Page 72

Phe Leu Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg 390 Pro Ser Cys Gly Pro Glu Ala Leu Gly His Leu Leu Ser Arg Ala Arg Ser Pro Glu Glu Leu Ser Leu Ala Thr Gln Leu Tyr Ala Gly Leu Val 420 425 430 Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe Arg Ser Cys Leu Ala 435 440 445 Arg Val His Ala Gly Thr Leu Gln Pro Pro Phe Thr Ala Arg Phe Leu 450 460 Arg Asn Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Gly Glu Gly 465 470 475 480 Pro Ala Ala Leu Gly Ala His Phe Gly Glu Ser Ala Ser Ala His Leu 485 490 495 Ser Asp Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu
500 505 510 Ala Ala Ser Leu Leu Ala Ile Cys Pro Phe Pro Ser Glu Ala Leu 515 520 525 Ser Pro Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His Arg Phe 530 540 Phe Ala Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Cys 545 550 555 560 Gln Leu Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala 565 570 575 Val Leu Gln Leu Leu Val Glu Gly Ala Leu His Arg Gly Asn Thr Glu 580 585 590 Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu Thr Leu Ser Val Val 595 600 605 Ser Ala Ser Leu Ala Ser Ala Ser Leu Leu Asp Thr Asn Arg Arg His 610 620 Thr Ala Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Page 73

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Gly Val Ile Gly Arg Gly Leu Lys Pro Pro Lys Phe Val Gln Ser Arg 645 650 655 Asn Gln Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Leu Ser Leu Leu Val His Cys Cys Ser Ala Pro Gly Gly Thr Glu Cys Gly Glu Cys Trp 675 680 685 Gly Ala Pro Ile Leu Ser Pro Glu Ala Ala Lys Ala Val Ala Val Thr 690 695 700 Leu Val Glu Ser Val Cys Pro Asp Ala Ala Gly Ala Glu Leu Ala Trp 705 710 715 720 Pro Pro Glu Glu His Ala Arg Ala Thr Val Glu Arg Asp Leu Arg Ile 725 730 735 Gly Arg Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu 740 745 750 Val Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg 755 760 765 Gly Leu Leu Ala Ala Leu Leu Gly His Trp Glu Ala Ser Arg His Pro 770 780 Asp Thr Thr His Ser Pro Trp His Leu Glu Ala Ser Cys Thr Leu Val 785 790 795 800 Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro Ala Leu Gly Asn Met 805 810 815 His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu Val Arg Leu Leu Leu 820 825 830 Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly Pro Leu Pro Gln Lys 835 840 845 Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile Arg Asp Phe Ser Arg 850 860

Glu Gly Gly Glu Gly Gly Pro His Leu Ala Val Leu His Ser Val 865 870 875

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Sequence Listing.ST25.txt
Leu His Arg Asn Ile Asp Arg Leu Gly Leu Phe Ser Gly Arg Phe Gln
885

Ala Pro Ser Pro Ser Thr Leu Leu Arg Gln Gly Thr
900

210> 18
221> 833

<210> 18 <211> 833 <212> PRT <213> Homo sapiens <400> 18

Pro Arg Val Arg Asp Ile Tyr Val Gln Cys Leu Ser Ala Leu Ile Gly $1 \hspace{1cm} 5 \hspace{1cm} 10 \hspace{1cm} 15$

Ser Cys Pro Asp Ala Cys Val Asp Ala Leu Leu Asp Thr Ser Val Gln 20 25 30

His Ser Pro His Phe Asp Trp Val Val Ala His Ile Gly Ser Ser Phe 35 40 45

Pro Gly Thr Ile Ile Ser Arg Val Leu Ser Cys Gly Leu Lys Asp Phe 50 60

Cys Val His Gly Gly Ala Gly Gly Gly Ala Gly Ser Ser Gly Gly Ser 65 70 75 80

Ser Ser Gln Thr Pro Ser Thr Asp Pro Phe Pro Gly Ser Pro Ala Ile $85 \hspace{1cm} 90 \hspace{1cm} 95 \hspace{1cm} .$

Pro Ala Glu Lys Arg Val Pro Lys Ile Ala Ser Val Val Gly Ile Leu $100 \hspace{1cm} 105 \hspace{1cm} 110$

Gly His Leu Ala Ser Arg His Gly Asp Ser Ile Arg Arg Glu Leu Leu 115 120 125

Arg Met Phe His Asp Ser Leu Ala Gly Gly Ser Gly Gly Arg Ser Gly 130 135 140

Asp Pro Ser Leu Gln Ala Thr Val Pro Phe Leu Leu Gln Leu Ala Val 145 150 155 160

Met Ser Pro Ala Leu Leu Gly Thr Val Ser Gly Glu Leu Val Asp Cys 165 170 175

Leu Lys Pro Pro Ala Val Leu Ser Gln Leu Gln Gln His Leu Gln Gly 180 185 190

Sequence Listing.ST25.txt Phe Pro Arg Glu Glu Leu Asp Asn Met Leu Asn Leu Ala Val His Leu 200 Ser Gln Ala Ser Gly Ala Gly Ala Tyr Arg Leu Leu Gln Phe Leu 210 220 Val Asp Thr Ala Met Pro Ala Ser Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Val Arg Glu Ala Cys Asp Arg Leu Ile Gln Leu Leu 245 250 255 Leu Leu His Leu Gln Lys Leu Val His His Arg Gly Gly Ser Pro Gly 260 265 270 Glu Gly Val Leu Gly Pro Pro Pro Pro Arg Leu Val Pro Phe Leu Asp Ala Leu Lys Asn His Val Gly Glu Leu Cys Gly Glu Thr Leu Arg Leu Glu Arg Lys Arg Phe Leu Trp Gln His Gln Leu Leu Gly Leu Leu Ser Val Tyr Thr Arg Pro Ser Cys Gly Pro Glu Ala Leu Gly His Leu 325 330 335 Leu Ser Arg Ala Arg Ser Pro Glu Glu Leu Ser Leu Ala Thr Gln Leu 340 345 350 Tyr Ala Gly Leu Val Val Ser Leu Ser Gly Leu Leu Pro Leu Ala Phe 355 Arg Ser Cys Leu Ala Arg Val His Ala Gly Thr Leu Gln Pro Pro Phe 370 380 Thr Ala Arg Phe Leu Arg Asn Leu Ala Leu Leu Val Gly Trp Glu Gln 385 395 400 Gln Gly Glu Gly Pro Ala Ala Leu Gly Ala His Phe Gly Glu Ser 405 410 415 Ala Ser Ala His Leu Ser Asp Leu Ala Pro Leu Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala Ala Ala Ser Leu Leu Ala Ile Cys Pro Phe

Pro Ser Glu Ala Leu Ser Pro Ser Gln Leu Leu Gly Leu Val Arg Ala 450 455 460 Gly Val His Arg Phe Phe Ala Ser Leu Arg Leu His Gly Pro Pro Gly 465 470 475 480 Val Ala Ser Ala Cys Gln Leu Leu Thr Arg Leu Ser Gln Thr Ser Pro 485 490 495 Ala Gly Leu Lys Ala Val Leu Gln Leu Leu Val Glu Gly Ala Leu His 500 505 510 Arg Gly Asn Thr Glu Leu Phe Gly Gly Gln Val Asp Gly Asp Asn Glu 515 520 525 Thr Leu Ser Val Val Ser Ala Ser Leu Ala Ser Ala Ser Leu Leu Asp 530 540 Thr Asn Arg Arg His Thr Ala Ala Val Pro Gly Pro Gly Gly Ile Trp 545 550 555 560 Ser Val Phe His Ala Gly Val Ile Gly Arg Gly Leu Lys Pro Pro Lys 565 570 575 Phe Val Gln Ser Arg Asn Gln Gln Glu Val Ile Tyr Asn Thr Gln Ser 580 585 590 Leu Leu Ser Leu Leu Val His Cys Cys Ser Ala Pro Gly Gly Thr Glu 595 600 605 Cys Gly Glu Cys Trp Gly Ala Pro Ile Leu Ser Pro Glu Ala Ala Lys 610 620 Ala Val Ala Val Thr Leu Val Glu Ser Val Cys Pro Asp Ala Ala Gly 625 635 640 Ala Glu Leu Ala Trp Pro Pro Glu Glu His Ala Arg Ala Thr Val Glu 645 650 655 Arg Asp Leu Arg Ile Gly Arg Arg Phe Arg Glu Gln Pro Leu Leu Phe Glu Leu Leu Lys Leu Val Ala Ala Ala Pro Pro Ala Leu Cys Tyr Cys Ser Val Leu Leu Arg Gly Leu Leu Ala Ala Leu Leu Gly His Trp Glu 695 Page 77

Ala Ser Arg His Pro Asp Thr Thr His Ser Pro Trp His Leu Glu Ala 705 710 715 720

Ser Cys Thr Leu Val Ala Val Met Ala Glu Gly Ser Leu Leu Pro Pro 725 730 735

Ala Leu Gly Asn Met His Glu Val Phe Ser Gln Leu Ala Pro Phe Glu 740 745 750

Val Arg Leu Leu Leu Ser Val Trp Gly Phe Leu Arg Glu His Gly 755 760 765

Pro Leu Pro Gln Lys Phe Ile Phe Gln Ser Glu Arg Gly Arg Phe Ile 770 775 780

Arg Asp Phe Ser Arg Glu Gly Gly Glu Gly Gly Pro His Leu Ala 785 790 795 800

Val Leu His Ser Val Leu His Arg Asn Ile Asp Arg Leu Gly Leu Phe 805 810 815

Ser Gly Arg Phe Gln Ala Pro Ser Pro Ser Thr Leu Leu Arg Gln Gly 820 825 830

Thr

<210> 19

<211> 963

<212> PRT

<213> Mus musculus

<400> 19

Met Ile Leu Met Ile Thr Leu Phe Thr Thr Ala Thr Phe Leu Val Leu 1 5 10 15

Gly Val Ser Val Trp Val Leu Ile Lys Glu Ile Leu Thr Val His Val 20 25 30

Pro Pro Pro Ile Pro Gln Arg Val Lys Phe His Met Leu His Tyr Phe 35 40 45

Phe Gln Leu Thr Ile Ala Leu Gly Asn Val Leu Glu Lys Met Lys Ile 50 60

Cys Pro Met Pro Arg Phe Phe Cys Phe Ile Gln Asp Leu Leu Val Ser 65 70 75 80 Page 78

Lys Asn Asn Phe Gly Val Leu Val Lys Asn Met His Phe Gly Thr Ile 85 90 95 Pro Val Arg Leu Phe Gln Pro Lys Ala Thr Ser Ser Gly Pro Arg Lys 100 105 110Gly Ile Ile Phe Tyr His Gly Gly Gly Val Phe Gly Ser Leu Asp 115 120 125 Ser Tyr His Asn Thr Cys Ser Tyr Leu Ala His Glu Thr Asp Ser Val 130 135 140 Val Met Ala Val Gly Tyr Arg Lys Leu Pro Asp His His Pro Thr 145 150 155 160 Ala Tyr His Asp Cys Leu Asn Ala Thr Val His Phe Leu Lys Glu Leu 165 170 175 Lys Thr Tyr Gly Val Asp Pro Ala Arg Val Val Ser Gly Glu Ser 180 185 190 Ile Gly Ala Gly Ala Ala Ala Ile Ile Ala Gln Val Val Leu Ala Arg 195 200 205 Lys Asp Leu Pro Gln Phe Arg Ala Gln Val Leu Ile Asn Pro Val Val 210 220 Gln Gly Val Asn Phe Gln Leu Pro Ser Tyr Gln Gln Tyr Ser Asp Val 225 230 235 240 Pro Phe Leu Ser Arg Lys Phe Leu Met Thr Cys Ala Cys Lys Tyr Leu 245 250 255 Ala Ile Asp Gln Ser Trp Lys Asp Ala Met Leu Lys Gly Thr Phe Ile 260 265 270Pro Pro Asp His Trp Lys Lys Tyr Ala Lys Trp Leu Ser Ser Asp Asn 275 280 285 Ile Pro Gln Arg Phe Lys Ser Gln Gly Arg Gln Pro Glu Phe Pro Gly 290 295 300 Pro Phe Asn Glu Ser Ala Tyr Leu Glu Thr Asn His Ile Phe Ser Leu 305 310 315 320 Glu Thr Ser Pro Leu Leu Ala Asp Asp Lys Ile Ile Ala Gln Leu Pro Page 79

Glu Thr Phe Leu Val Ser Ser Glu Tyr Asp Val Leu Arg Asp Asp Thr 340 345 350 Leu Leu Tyr Lys Lys Arg Leu Glu Glu Glu Gly Val Pro Val Thr Trp 355 360 365 Leu Trp Val Gly Leu Pro Asp Val Arg Val Val Pro Leu Ser Gln Gly 370 380 Pro Arg Ala Pro Gly Pro Pro Gly Pro Ala Pro Ala Thr His Gly Pro 385 390 395 400 Val Pro Leu Ser Ala Gln Glu Leu Ser Gln Glu Ile Lys Ala Phe Leu Thr Gly Val Asp Pro Ile Leu Gly His Gln Leu Ser Ala Arg Glu His 420 425 430 Ala Gln Cys Gly Leu Leu Leu Arg Ser Leu Pro Pro Ala Gln Ala 445 Ala Val Leu Asp His Leu Arg Gly Val Phe Asp Glu Ser Val Gln Ala 450 455 460 His Leu Ala Ala Leu Glu Glu Ser Pro Val Ala Gly Pro Pro His Leu 465 470 475 480 Arg Pro Pro Ser Pro Ser His Val Pro Thr Gly Gly Pro Gly Leu Glu 485 490 495 Asp Val Val His Glu Val Gln Gln Val Leu Cys Glu Phe Ile Arg Ala 500 505 510 Asn Pro Lys Val Trp Ala Pro Val Ile Ser Ala Trp Ser Ile Asp Leu 515 520 525 Met Gly Gln Leu Ser Ser Thr Tyr Ser Gly Gln His Gln Arg Val Pro 530 540 His Ala Thr Gly Ser Arg Asn Glu Leu Leu Gln Leu Trp Met Ser Cys 545 550 560 Arg Asp Thr Arg Thr Leu Met Asp Ile Tyr Val Gln Cys Leu Ser Ala 565 570 575

Sequence Listing.ST25.txt Leu Ile Gly Ser Cys Pro Asp Ala Tyr Ser Phe Pro Gly Phe Pro Ala 580 585 590 Ile Pro Gly Glu Lys Arg Val Pro Lys Ile Ala Ser Ala Val Gly Ile 595 600 605 600 Gln Val Thr Trp Leu Ser Ala Met Glu Thr Ala Ser Asp Gly Asn Cys Cys Ala Cys Phe Met Ile Val Trp Gln Arg Phe Leu Val Asp Thr Ala Met Pro Ala Ala Val Ile Thr Thr Gln Gly Leu Ala Val Pro Asp Thr Met Arg Glu Ala Tyr Asp Arg Leu Ile Gln Leu Leu Leu His Leu Gln Lys Leu Val His His Arg Gly Gly Ala Pro Gly Glu Gly Val Leu Gly Pro Pro Ser Pro Pro Leu Pro Val Pro Phe Leu Asp Ala Leu Arg Asn His Val Gly Glu Leu Cys Gly Lys Thr Leu Arg Leu Glu Arg Lys 705 715 720 Arg Phe Leu Trp Gln His Gln Leu Leu Ala Tyr Ser Trp Phe Leu Arg 725 730 735 Lys Leu Ala Leu Leu Val Gly Trp Glu Gln Gln Gly Asp Glu Gly Pro
740 745 750 Ser Ala Leu Gly Ala Arg Phe Gly Glu Ser Ala Ser Ala His Leu Ser 755 760 765 Asp Leu Ala Pro Leu Leu His Pro Glu Glu Glu Val Ala Glu Ala 770 775 780 Ala Ala Ser Leu Leu Ala Val Cys Pro Phe Pro Ser Glu Ala Leu Ser Pro Ser Gln Leu Leu Gly Leu Val Arg Ala Gly Val His His Phe Phe Asn Ser Leu Arg Leu His Gly Pro Pro Gly Val Ala Ser Ala Ser Gln 820 825 830

Leu Leu Thr Arg Leu Ser Gln Thr Ser Pro Ala Gly Leu Lys Ala Val 835 840 845

Leu Gln Leu Leu Val Glu Val Ala Leu His Arg Gly Asn Thr Glu Leu 850 855 860

Phe Gly Glu Glu Met Val Gly Asp Asn Glu Thr Leu Ser Ile Val Ser 865 870 875 880

Thr Pro Leu Ala Ser Ala Ser Leu Leu Asp Ile Asn Arg Arg His Thr 885 890 895

Ala Ala Val Pro Gly Pro Gly Gly Ile Trp Ser Val Phe His Ala Gly 900 905 910

Val Ile Gly Arg Gly Leu Lys Ser Pro Lys Ile Val Gln Ser Arg Asn 915 920 925

His Gln Glu Val Ile Tyr Asn Thr Gln Ser Leu Ile Ser Leu Leu Val 930 935 940

His Cys Cys Ser Ala Ser Gly Ser Ser Glu His Lys Gly Tyr Trp Gly 945 955 960

Ala Pro Thr

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<211> 900

<212> PRT

<213> Anopheles gambiae

<400> 20

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His Glu Ala Leu Glu Arg Leu Val Thr Val Gly Pro Thr Ala Trp Cys 20 25 30

Pro Val Ile Ser Ser Trp Cys Leu Lys Leu Leu Gly Glu Val Cys Lys
35 40 45

Lys His Cys Arg Arg Arg Pro Pro Asp Ile Arg Gly Ala Cys Asn Leu 50 60

Trp Leu Gly Cys Ser Ala Ile Arg Tyr Leu Leu Ser Leu Ser Ala Leu 65 70 75 80

Cys Phe Glu Lys Leu Asp Gln Arg Glu Met Asp Glu Cys Ile Asn Glu 85 90 95 Met Leu Val Ile Tyr Gly Thr His Thr Pro Phe Phe Asp Trp Val Val Ala Arg Leu Gly Gly Cys Phe Pro Leu Arg Val Met Ser Ser Met Leu Ser Met Gly Val Ala Arg Phe Thr Gly Asp Phe Asp Gln Pro Ser Glu 130 135 140 Ser Glu Val Glu Val Leu Ser Tyr Leu Gly Leu Ala His Glu Ser Asp Leu Arg Lys Ala Leu Lys Ser Thr Leu Glu His Val Ala Ser Tyr Lys Gln Pro Ile Pro Tyr Leu Leu Met Leu Ala Lys Ala Ser Glu Thr Ile 180 185 Ser Gln Ala Leu Val Ala Val Phe Leu Glu Leu His Asp Glu Asn Arg 195 200 205 Leu Pro Thr Leu Thr Val Leu Pro Lys Asn Trp Pro Ala Asn Ile Gly 210 225 220 Leu Pro Tyr Val Leu His Thr Val Ala Gly Leu Leu Leu Lys Met Lys 225 230 235 240 Lys His Ala Ile Arg Val Thr Leu Ile Leu Ala Lys Met Ser Thr Gln 245 250 255 His Ser Trp Cys Gln Glu Leu Leu Glu Met Met Phe Ile Glu Leu Glu 260 265 270 Thr Leu Val Leu Asp Lys His Thr Ala Ala Leu Leu Glu Asp Ile Ile 275 280 285 Arg Asp Gly Met Arg Glu Met Leu Trp Asn Ser Cys Thr Ser Asp Val 290 295 300 Pro Tyr Leu Gln Gln Val Ala Val Arg Leu Ile Leu Leu Ala Ser Phe 305 310 315 320Lys Ser Asn Ser Val Phe His Gln Thr Ile Val Tyr Leu Leu Ser Val Page 83

Ser Glu Pro Ala Leu Ala Val Ser Thr Lys Pro His Leu Asn Ala Leu 345 Val Arg Val Leu Gly Gly Pro His Gly Thr Val Asp Val Pro Lys Val Lys Pro Ala Phe Glu Thr Ala Phe Glu Lys Ile Leu Ile Ser Pro Cys Lys Arg Val Glu Cys Trp Asn Ile Leu His Asn Leu Val Glu Leu Leu 385 390 400 Lys Leu Glu Arg Thr Ala Ile Leu Gly Ser Thr Leu Arg Lys Val Asn Cys Thr Gly Met Met His Glu Leu Leu Asp Arg Val Leu Lys Ile Trp Glu Asn Phe Met Ser Arg Glu Arg Gln Asp Asp Thr Gln Gly Gly Gly Cys Thr Val Arg Ala Thr Gln Glu Val Gln Glu Asn Ala Asn Glu Pro Gly Lys Arg Val Lys Asn Glu Arg Pro Glu Pro Met Glu Thr Asp Glu 465 470 475 480 Gln His Arg Leu Gly Thr Gly Ser Arg Thr Val Thr Tyr Lys Asp Leu 485 490 495 Ile His Glu Thr Val Arg Leu Ile Glu Cys Met Asp Leu Gly Lys Ser Val Thr Ile Gly Thr Ala Gln Thr Leu Lys Leu Ser Gln Leu Leu Val Lys Tyr Phe Phe Tyr Cys Leu Lys Leu Ser Thr Ala Gly Thr Ser Val 530 535 540 540 Pro Ser Gly Thr Val Pro Glu Ser Leu Asp Glu Ser Leu Asn Arg Val Tyr Ser Leu Leu Ser Lys His Cys Gly His Arg Lys Ala Ala Arg Thr 565 570 575 Ala Ala Leu Arg Glu Leu Leu Glu Gly Ala Leu Phe Leu Tyr Gly Asp Page 84

Leu Phe Gly Ser Gln Ala Glu Ser Gln Ala Tyr Ser Phe Asp Lys Pro 595 600 605 Asp Asp Leu Leu Ile Arg Leu Asn Gln Lys Gln Gly Ile Ala Leu Asn 610 620 Ala Ser Arg Ala Thr Val Leu His Ala Gly Ile Ile Gly Gln Gly Pro Lys Ile Pro Ser Lys Lys Ala Val Gly Pro Ala Ser Glu Met Gln Asn 645 650 655 His Leu Leu Asn Ala Ile Val Ala Cys Cys Gln Asp Val Asn Asp His 660 665 670 Gln Ala Thr Ile Asp Gly Phe Ser Tyr Val Ser Leu Leu Leu Val Glu 675 680 685 Met Ile Ser Pro Asp Val Met Tyr Asn Gly Leu Pro Trp Pro Glu Glu 690 700 Asp Phe Ile Arg Val Thr Met Glu Arg Asp Leu Gln Ile Gln Arg Thr 705 710 715 720 Phe Arg His Ser Pro Ile Leu Trp Ser Ile Leu Gly Leu Val Ala Cys 725 730 735 Tyr Arg Pro Ser Leu Cys Tyr Cys Ser Val Leu Leu Arg Ala Leu Cys 740 745 750 Ala Ser Ala Leu His Gln Trp Arg Ser Lys Thr Ala Glu Thr Leu Asn 755 760 765 Gly Gln Lys Thr Asp Leu Leu Tyr Met Thr Thr Lys Leu Leu Glu Leu 770 780 Met Ala Leu Ala Gln Leu Leu Pro Pro Pro Leu Ser Tyr Leu His Ile 800 Val Leu Glu Tyr Phe Asp Gly Pro Glu Ile Ala Tyr Val Leu Lys Glu 805 810 815 Cys Val Trp Asn Tyr Met Lys Asp His Val Pro Ser Pro Val Leu Phe 820

Sequence Listing.ST25.txt Val Cys Asp Pro Thr Gly Phe His Trp Arg Asp Pro Leu Thr Ser Arg 835 840 845

Pro Pro Leu Gln Tyr Thr Asn Pro Leu Arg Asn Thr Met Gln Lys Lys 850

Leu Thr Lys Val Gly His Leu Tyr His Gln Met Phe Val Gly Pro Glu 865 870 875 880

Leu Arg Asn Pro Ser Ala Ser Asn Ser Gly Gln Pro Thr Gln Gln Pro 885 890 895

Leu Val Gln Gly 900

<210>

21 27 <211>

<212> PRT

<213> Homo sapiens

<400> 21

Met Ser Ala Leu Cys Asp Pro Pro Gly Ala Pro Gly Pro Pro Gly Pro 1 5 10 15

Ala Pro Ala Thr His Gly Pro Ala Pro Leu Ser